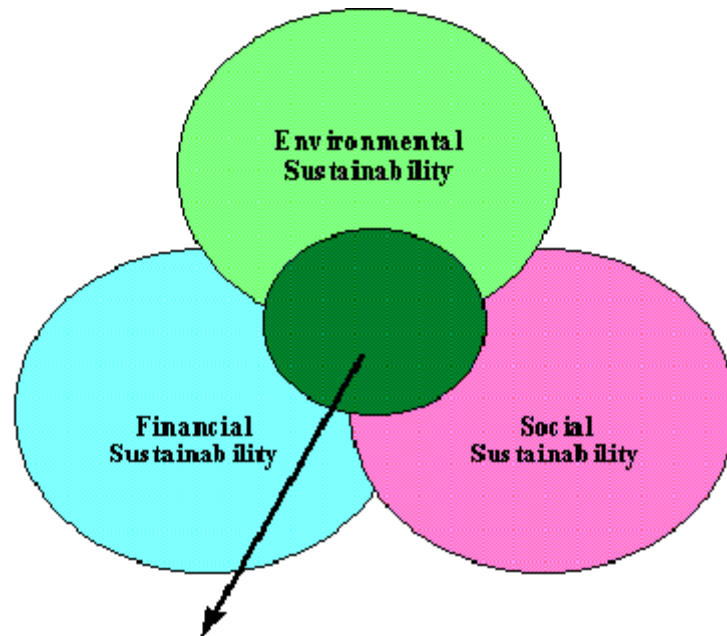


SUSTAINABLE AGRICULTURE

"Science consists not in the accumulation of knowledge, but in the creation of fresh modes of perception."

- David Bohm (1993)



SUSTAINABLE AGRICULTURE



[1]

[2]

Industrial Agriculture: The Problem

Agriculture represents perhaps the most fundamental connection between society and nature. The industrialization of agriculture has brought many benefits, including lower food prices for consumers, the creation of markets for global trade, technology, and wider availability of different foods. Farmers, consumers, scientists, and policymakers alike are, however, becoming more aware of the environmental problems that can result from industrial agriculture. These problems force people to form more holistic models of nature, society, and productivity. Industrial agriculture is particularly integrated into the corn belt of the Midwest, including the large agricultural area in Minnesota River Watershed. The Minnesota River is currently one of the 20 most endangered waterways in America, and is highly threatened by non-point source pollutant loading from agriculture.

Sustainable Agriculture: The Solution

As people begin to rethink the industrial model of agriculture, it becomes important to propose a concrete solution. Unfortunately, sustainable agriculture comes in multiple forms and has multiple definitions. The definition of sustainability as introduced by Congress in the 1990 Farm Bill mentions an integrated system of plant and animal production that will satisfy human food needs, enhance environmental quality, make efficient use of nonrenewable resources, sustain economic viability, and enhance the quality of life for farmers and society. This broad range of goals does not provide specific methods to address industrial agriculture and implement change. In the Minnesota River Watershed, sustainable agriculture including the elimination of pesticide use, improvement of drainage systems, and management of soil erosion, would improve the water quality for both ecosystems and city water supplies.

Suggestions for Policy and Change

If sustainable agriculture is to be in the future for the Minnesota River Watershed, it will depend upon the work of both public and private institutions and organizations. Research on non-point source pollution and other impacts is important, but this will not occur without available funding. Institutions that foster cooperation between farmers, ecologists, policymakers, citizens, and educators will ultimately be the most successful in achieving realistic results for the Minnesota River Watershed. I believe that the University of Minnesota Cooperative Extension will play an increasingly important role in the development and implementation of sustainable agricultural practices in this area. The land-grant universities, launched by the Morrill Acts of 1862, originally provided technology and funding that allowed industrial agriculture to flourish and, in many cases, made "the agricultural scientists the experts and the farmers the clients" [3]. Now it is up to land-grant universities, as well as partnerships between universities and non-profit organizations, to address this problem in a way that integrates scientific knowledge with sustainable farming practices. This cannot be done, of course, without a commitment to sustainability.

As always, education is an important piece to the puzzle. The links below provide additional information from both research institutions and non-profit organizations.

Links

Minnesota Institute for Sustainable Agriculture
<http://www.misa.umn.edu/>

University of Minnesota Cooperative Extension
<http://www.extension.umn.edu/>

Minnesota River Basin Information Page
<http://www.soils.umn.edu/research/mn-river/>

